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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 5

Complete if Known	
Application Number	10/643,574
Filing Date	August 18, 2003
First Named Inventor	Kohn, James
Group Art Unit	2183
Examiner Name	Fennema, Robert
Attorney Docket No: 1376.730US1	

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate
RF	US-2002/0169938A1	11/14/2002	Scott, S. L., et al.	12/14/2001
	US-2002/0172199A1	11/21/2002	Scott, S. L., et al.	12/14/2001
	US-2003/0005380A1	01/02/2003	Nguyen, H. T., et al.	06/29/2001
	US-2004/0044872A1	03/04/2004	Scott, S. L.	09/04/2002
	US-2004/0162949A1	08/19/2004	Scott, S. L., et al.	02/18/2003
	US-2005/0044128A1	02/24/2005	Scott, S. L., et al.	08/18/2003
	US-2005/0044340A1	02/24/2005	Sheets, K. , et al.	08/18/2003
	US-4,541,046	09/10/1985	Nagashima, S., et al.	03/23/1982
	US-4,771,391	09/13/1988	Blasbalg, H.	07/21/1986
	US-4,868,818	09/19/1989	Madan, H. S., et al.	10/29/1987
	US-4,888,679	12/19/1989	Fossum, T., et al.	01/11/1988
	US-4,933,933	06/12/1990	Dally, W. J., et al.	12/19/1986
	US-5,008,882	04/16/1991	Peterson, J. C., et al.	08/17/1987
	US-5,031,211	07/09/1991	Nagai, Y., et al.	02/01/1990
	US-5,036,459	07/30/1991	Den Haan, P. A., et al.	03/09/1989
	US-5,105,424	04/14/1992	Flaig, C. M., et al.	06/02/1988
	US-5,157,692	10/20/1992	Horie, T., et al.	03/20/1990
	US-5,161,156	11/03/1992	Baum, R. I., et al.	02/02/1990
	US-5,170,482	12/08/1992	Shu, R., et al.	02/13/1991
	US-5,175,733	12/29/1992	Nugent, S. F.	12/27/1990
	US-5,197,130	03/23/1993	Chen, S. S., et al.	12/29/1989
	US-5,218,601	06/08/1993	Chujo, T., et al.	12/20/1990
	US-5,218,676	06/08/1993	Ben-ayed, M., et al.	01/08/1990
	US-5,239,545	08/24/1993	Buchholz, D. R.	11/05/1990
	US-5,276,899	01/04/1994	Neches, P. M.	08/10/1990
	US-5,280,474	01/18/1994	Nickolls, J. R., et al.	01/05/1990
	US-5,313,628	05/17/1994	Mendelsohn, N. R., et al.	12/30/1991
	US-5,313,645	05/17/1994	Rolfe, D. B.	05/13/1991
	US-5,331,631	07/19/1994	Teraslinna, K. T.	03/16/1993
	US-5,333,279	07/26/1994	Dunning, D.	06/01/1992
	US-5,341,504	08/23/1994	Mori, K., et al.	03/01/1990
	US-5,347,450	09/13/1994	Nugent, S. F.	08/19/1993
	US-5,353,283	10/04/1994	Tsuchiya, P. F.	05/28/1993
	US-5,365,228	11/15/1994	Childs, P. L., et al.	08/21/1991
	US-5,430,850	07/04/1995	Papadopoulos, G. M., et al.	07/22/1991
	US-5,430,884	07/04/1995	Beard, D. R., et al.	06/11/1990
	US-5,434,995	07/18/1995	Oberlin, S. M., et al.	12/10/1993
	US-5,440,547	08/08/1995	Easki, H., et al.	01/05/1994
	US-5,446,915	08/29/1995	Pierce, P. R.	05/25/1993
	US-5,517,497	05/14/1996	LeBoudec, J.-Y., et al.	03/21/1995

EXAMINER **DATE CONSIDERED**

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Sheet 2 of 5

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Group Art Unit	2183
Examiner Name	Fennema, Robert

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US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate
RF	US-5,546,549	08/13/1996	Barrett, L., et al.	06/01/1994
	US-5,548,639	08/20/1996	Ogura, T., et al.	10/22/1992
	US-5,550,589	08/27/1996	Shiojiri, H., et al.	11/04/1994
	US-5,555,542	09/10/1996	Ogura, T., et al.	01/11/1996
	US-5,560,029	09/24/1996	Papadopoulos, G. M., et al.	05/31/1994
	US-5,649,141	07/15/1997	Yamazaki, T.	06/30/1995
	US-5,765,009	06/09/1998	Ishizaka, K.	01/08/1997
	US-5,787,494	07/28/1998	Delano, E. R., et al.	09/22/1995
	US-5,860,146	01/12/1999	Vishin, S., et al.	06/25/1996
	US-5,897,664	04/27/1999	Nesheim, W. A., et al.	07/01/1996
	US-6,003,123	12/14/1999	Carter, N. P., et al.	02/10/1998
	US-6,088,701	07/11/2000	Whaley, K. M., et al.	11/14/1997
	US-6,101,590	08/08/2000	Hansen, C.	10/10/1995
	US-6,105,113	08/15/2000	Schimmel, C. F.	08/21/1997
	US-6,308,250	10/23/2001	Klausler, P. M.	06/23/1998
	US-6,308,316	10/23/2001	Hashimoto, S., et al.	01/08/1998
	US-6,490,671	12/03/2002	Frank, R. L., et al.	05/28/1999
	US-6,684,305	01/27/2004	Deneau, T. M.	04/24/2001
	US-6,782,468	08/24/2004	Nakazato, S.	12/13/1999
	US-6,922,766	07/26/2005	Scott, S. L.	09/04/2002
	US-6,925,547	08/02/2005	Scott, S. L., et al.	12/14/2001
	US-6,976,155	12/13/2005	Drysdale, T. G., et al.	06/12/2001
	US-RE28,577	10/21/1975	Schmidt, W. G.	11/21/1973

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	T²
RF	EP-0353819A2	02/07/1990	Gupta, R., et al.	
	EP-0473452A2	03/04/1992	Duerrschmid, O., et al.	
	EP-0475282A2	09/14/1990	Kametani, M.	
	EP-0501524A2	09/02/1992	Hillis, D. W., et al.	
	EP-0570729A2	11/24/1993	Collins, C. A., et al.	
	WO-87/01750A1	03/26/1987	Anderson, S.	
	WO-88/08652A1	11/03/1988	Hillis, D. W., et al.	
	WO-95/16236A1	06/15/1995	Oberlin, S. M., et al.	

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	Filing Date	August 18, 2003
	First Named Inventor	Kohn, James
	Group Art Unit	2183
	Examiner Name	Fennema, Robert
Sheet 3 of 5	Attorney Docket No: 1376.730US1	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	**Cite No [1]**	**Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.**	**T[2]**
RF		"Cray Assembly Language (CAL) for Cray X1™ Systems Reference Manual", Section 2.6, Memory Ordering, http://docs.cray.com/books/S-2314-51/index.html, (June, 2003), 302 pgs.	
		"Deadlock-Free Routing Schemes on Multistage Interconnection Networks", IBM Technical Disclosure Bulletin, 35, (December, 1992), 232-233	
		"Msync - Synchronise Memory with Physical Storage", The Single UNIX® Specification, Version 2, The Open Group, https://www.opengroup.org/onlinepubs/007908799/xsh/msync.html, (1997), 3 pgs.	
		ABTS, D., "So Many States, So Little Time: Verifying Memory Coherence in the Cray X1", Parallel and Distributed Processing Symposium, (April 22, 2003), 11-20	
		ADVE, V. S., et al., "Performance Analysis of Mesh Interconnection Networks with Deterministic Routing", Transactions on Parallel and Distributed Systems, (March, 1994), 225-246	
		BOLDING, K., "Non-Uniformities Introduced by Virtual Channel Deadlock Prevention", Technical Report 92-07-07, Department of Computer Science and Engineering, FR-35 University of Washington; Seattle, WA 98195, (July 21, 1992), 1-6	
		BOLLA, R., "A Neural Strategy for Optimal Multiplexing of Circuit and Packet-Switched Traffic", Proceedings, IEEE Global Telecommunications Conference, (1992), 1324-1330	
		BOURA, Y. M., et al., "Efficient Fully Adaptive Wormhole Routing in *n*-dimensional Meshes", Proceedings, International Conference on Distributed Computing Systems, (June, 1994), 589-596	
		BUNDY, A., et al., "Turning Eureka Steps into Calculations in Automatic Program Synthesis", Proceedings of UK IT 90, (IEE Conf. Pub. 316) (DAI Research Paper 448), (1991), 221-226	
		CARLILE, B. R., "Algorithms and Design: The CRAY APP Shared-Memory System", COMPCON Spring '93. Digest of Papers., (February 22, 1993), 312-320	
		CHEN, Y., et al., "UTLB: A Mechanism for Address Translation on Network Interfaces", Proceedings of the Eighth International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS), (1998), 193-204	
		CHIEN, A. A., et al., "Planar-Adaptive Routing: Low-Cost Adaptive Networks for Multiprocessors", Proceedings 19th International. Symposium on Computer Architecture, (May 1992), 268-277	
		DALLY, W. J., et al., "Deadlock-Free Adaptive Routing in Multicomputer Networks Using Virtual Channels", IEEE Transactions on Parallel and Distributed Systems, 4(4), (April 1993), 466-475	

EXAMINER **DATE CONSIDERED**

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Group Art Unit	2183
Examiner Name	Fennema, Robert

Sheet 4 of 5

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OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

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RF		DALLY, W., et al., "Deadlock-Free Message Routing in Multiprocessor Interconnection Networks", IEEE Transactions on Computers, C-36, (May 1987),547-553	
		DALLY, W., "Performance Analysis of *k*-ary *n*-cube Interconnection Networks", IEEE Transactions on Computers, 39(6), (June, 1990), 775-785	
		DALLY, W. J., "Virtual Channel Flow Control", Proceedings, 17th International Symposium on Computer Architecture, (May, 1990),60-68	
		DUATO, J., "A New Theory of Deadlock-Free Adaptive Routing in Wormhole Networks", IEEE Transactions on Parallel and Distributed Systems, 4(12), (December, 1993), 1320-1331	
		GALLAGER, R., "Scale Factors for Distributed Routing Algorithm", NTC '77 Conference Record, Vol. 2, (1977), 28:2-1 - 28:2-5	
		GHARACHORLOO, K., "Two Techniques to Enhance the Performance of Memory Consistency Models", Proceedings of the International Conference on Parallel Processing, (1991), 1-10	
		GLASS, C. J., et al., "The Turn Model for Adaptive Routing", Proceedings, 19th Interanational Symposium on Computer Architecture, (May, 1992), 278-287	
		GRAVANO, L , et al., "Adaptive Deadlock- and Livelock-Free Routing with all Minimal Paths in Torus Networks", IEEE Transactions on Parallel and Distributed Systems, 5(12), (December 1994), 1233-1251	
		GUPTA, R., et al., "High Speed Synchronization of Processors Using Fuzzy Barriers", International Journal of Parallel Programming 19(1), (February, 1990), 53-73	
		ISHIHATA, H., et al., "Architecture of Highly Parallel AP1000 Computer", Systems and Computers in Japan, 24(7), (1993),69-76	
		JESSHOPE, C. R., et al., "High Performance Communications in Processor Networks", Proceedings, 16th International Symposium on Computer Architecture, (May, 1989), 150-157	
		KIRKPATRICK, S., et al., "Optimization by Simulated Annealing", Science, 220(4598), (May 13, 1983),671-680	
		KONTOTHANASSIS, L., et al., "VM-Based Shared Memory on Low-Latency, Remote-Memory-Access Networks", Proceedings of the ACM ISCA '97, (1997), 157-169	
		LINDER, D. H., et al., "An Adaptive and Fault Tolerant Wormhole Routing Strategy for k-ary n-cubes", IEEE Transactions on Computers,40(1), (1991),2-12	
		LUI, Z., et al., "Grouping Virtual Channels for Deadlock-Free Adaptive Wormhole Routing", 5th International Conference, Parallel Architectures and Languages Europe (PARLE '93), (June 14-17, 1993), 254-265	
		NUTH, P., et al., "The J-Machine Network", Proceedings of the IEEE International Conference on Computer Design on VLSI in Computer & Processors, (1992), 420-423	

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RF		O'KEEFE, M. T., et al., "Static Barrier MIMD: Architecture and Performance Analysis", Journal of Parallel and Distributed Computing, 25(2), (March 25, 1995),126-132	
		PATTERSON, D. A., et al., Computer Architecture: A Quantitative Approach, 2nd Edition, Morgan Kaufmann Publishers, Inc., San Francisco, CA, (1996), 39-41	
		PATTERSON, D. A., et al., Computer Architecture: A Quantitative Approach, 2nd Edition, Morgan Kaufmann Publishers, Inc., San Francisco, CA, (1996), 699-708	
		PATTERSON, D. A., et al., Computer Architecture: A Quantitative Approach, 2nd Edition, Morgan Kaufmann Publishers, Inc., San Francisco, CA, (1996), 179-187, 373-384	
		SCOTT, S., "Synchronization and Communication in the T3E Multiprocessor", ASPLOS, Volume II, (1996), 26-36	
		SHUMWAY, M., "Deadlock-Free Packet Networks", Transputer Research and Applications 2, NATUG-2 Proceedings of the Second Conference of the North American Transputer Users Group, (October 18-19, 1989), 139-177	
		SNYDER, L., "Introduction to the Configurable, Highly Parallel Computer", IEEE Computer 15(1), (January, 1982), 47-56	
		TALIA, D., "Message-Routing Systems for Transputer-Based Multicomputers", IEEE Micro, 13(3), (June, 1993), 62-72	
		WANG, W., et al., "Trunk Congestion Control in Heterogeneous Circuit Switched Networks", IEEE Transactions on Communications, 40(7), (July, 1992),1156-1161	
		WOOD, D. A., et al., "An In-Cache Address Translation Mechanism", Proceedings of the 13th Annual International Symposium on Computer Architecture, (1986), 358-365	
		WU, M.-Y., et al., "DO and FORALL: Temporal and Spatial Control Structures", Proceedings, Third Workshop on Compilers for Parallel Computers, ACPC/TR, (July, 1992), 258-269	
		YANG, C. S., et al., "Performance Evaluation of Multicast Wormhole Routing in 2D-Torus Multicomputers", Proceedings, Fourth International Conference on Computing and Information (ICCI '92), (1992), 173-178	
		YANTCHEV, J., et al., "Adoptive, Low Latency, Deadlock-Free Packet Routing for Networks of Processors", IEEE Proceedings, 136, Part E, No. 3, (May, 1989), 178-186	

EXAMINER	/Robert Fennema/	**DATE CONSIDERED**	07/11/2006

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